

Application No.: 10/081,564
Amendment and Response dated December 24, 2003
Reply to Office Action of October 3, 2003
Docket No.: 500-151
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A curable composition comprising:

(a) a urethane acrylate oligomer comprising at least one di- or poly-functional urethane acrylate monomer and at least one mono-functional urethane acrylate monomer;

(b) a reactive plasticizer or reactive diluent; and

(c) a cure system,

wherein said composition when cured produces a Shore A hardness of about 55 or less.

Claim 2 (currently amended): The curable composition of claim 1, wherein said urethane acrylate oligomer comprises a di-functional monomer present in amounts of about 25% to about 55% by weight di-functional monomer of said curable composition.

Claim 3 (currently amended): The curable composition of claim 1, wherein said urethane acrylate oligomer comprises a di-functional monomer present in amounts of about 30% to about 47% by weight di-functional monomer of said curable composition.

Claim 4 (currently amended): The curable composition of claim 1, wherein said urethane acrylate oligomer comprises a mono-functional monomer present in amounts of about 15% to about 65% by weight mono-functional monomer of said curable composition.

Claim 5 (currently amended): The curable composition of claim 1, wherein said urethane acrylate oligomer comprises a mono-functional monomer present in amounts of about 10% to about 30% by weight mono-functional monomer of said curable composition.

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Claim 6 (original): The urethane acrylate of claim 1, wherein said reactive plasticizer or reactive diluent comprises a mono-functional (meth)acrylate.

Claim 7 (currently amended): The curable composition of claim 1, wherein said urethane acrylate oligomer comprises a polyester based aliphatic urethane-acrylate.

Claim 8 (original): The curable composition of claim 1, wherein said reactive plasticizer or reactive diluent is present in amounts of about 0.5 to about 45% by weight of said curable composition.

Claim 9 (original): The curable composition of claim 8, wherein said reactive plasticizer or reactive diluent is present in amounts of about 28% to about 45% by weight of said curable composition.

Claim 10 (original): The curable composition of claim 1, wherein said reactive plasticizer or reactive diluent is selected from the group consisting of 2(2-ethoxyethoxy)-ethyl acrylate, isobornyl acrylate and combinations thereof.

Claim 11 (original): The curable composition of claim 1, wherein said cure system comprises a photoinitiator.

Claim 12 (original): The curable composition of claim 11, wherein said photoinitiator is present in amounts of about 1% to about 10% by weight of the curable composition.

Claim 13 (original): The curable composition of claim 11, wherein said photoinitiator is present in amounts of about 4% to about 7% by weight of the curable composition.

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Claim 14 (original): The curable composition of claim 1, further comprising a pigment selected from the group consisting of organic and inorganic pigments, dyes and combinations thereof.

Claim 15 (original): The curable composition of claim 14, wherein said pigment composition is plasticized in a carrier.

Claim 16 (currently amended): A curable composition comprising:

- (a) a di-functional urethane acrylate oligomer, wherein said oligomer comprises about 35% to about 43% by weight of said curable composition;
- (b) a mono-functional urethane acrylate, wherein said mono-functional urethane acrylate is present in amounts of about 15% by weight of said curable composition;
- (c) a reactive plasticizer or reactive diluent, wherein said plasticizer or diluent is present in amounts of about ~~35%~~ 0.5% to about 43% by weight of said curable composition; and
- (d) a photoinitiator, wherein said photoinitiator is present in amounts of about 5% by weight of said curable composition.

Claim 17 (currently amended): The curable composition of claim 16, wherein said reactive plasticizer or reactive diluent comprises ~~about 5% to about 10% by weight~~ 2(2-ethoxyethoxy)-ethyl acrylate present in amounts of about 5% to about 10% by weight of said curable composition.

Claim 18 (currently amended): A composition comprising the reaction product of:

- (a) a urethane acrylate oligomer comprising at least one di- or poly-functional urethane acrylate monomer and at least one mono-functional urethane acrylate monomer; and
 - (b) a reactive plasticizer
- wherein said reaction product produces a Shore A hardness of about 55 or less.

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Claim 19 (currently amended): A method of making a soft tip hearing aid component comprising the steps of:

(a) combining a curable composition comprising:

(i) a urethane acrylate oligomer comprising at least one di- or poly-functional urethane acrylate monomer and at least one mono-functional urethane acrylate monomer;

(ii) a reactive plasticizer or reactive diluent;

(iii) a cure system;

(b) pouring said curable composition into a mold cavity of a mold; and

(c) exposing said curable composition to photo-radiation for a time and intensity sufficient to fully cure said composition to produce Shore A hardness of about 55 or less.

Claim 20 (currently amended): The method of claim 19, further comprising the steps of adding on top of said component a layer of uncured monomeric material and curing said monomeric material ~~to a desired thickness~~.

Claim 21 (original): The method of claim 20, wherein said monomer material forms a hearing aid housing when cured.

Claim 22 (original): The method of claim 21, wherein curing said monomeric material on top of said component includes adhering to one another.

Claim 23 (currently amended): An ear-worn hearing aid component comprising the reaction product of:

(a) a urethane acrylate oligomer comprising at least one di- or poly-functional urethane acrylate monomer and at least one mono-functional urethane acrylate monomer; and

(b) a reactive plasticizer or reactive diluent,

wherein said composition when cured produces a Shore A hardness of about 55 or less.

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Claim 24 (currently amended): A hearing aid assembly comprising:

- (a) amplifier means for receiving and amplifying unamplified sound;
- (b) a tube adapted for conveying amplified sound from said amplifier means to a first end of said tube inside the ear canal;
- (c) a soft tip enclosing said tube comprising the reaction product of:
 - (i) a urethane acrylate oligomer comprising at least one di- or poly-functional urethane acrylate monomer and at least one mono-functional urethane acrylate monomer; and
 - (ii) a reactive plasticizer or reactive diluent,wherein said soft tip exhibits a Shore A hardness of about 55 or less; and
- (d) a housing comprising a cured monomeric material enclosing said amplifier means and mating to said soft tip.